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THE UNIVERSITY OF ALBERTA

The Effectiveness of Assertion Training With Pregnant Adolescents

by

Lorna Kathryn Spenrath

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF Master of Education

IN

Counseling Psychology

Department of Educational Psychology

EDMONTON, ALBERTA

Spring, 1986

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ISBN 0-315-30312-3

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Supervisor

.....

.....

Date..APRIL..17,...1986.....

DEDICATION

To my mother and father, Silja & Bruno Spenrath

ABSTRACT

Adolescent pregnancy is a major social and medical concern in Canada; the rate of unplanned pregnancies is steadily increasing along with a decrease in the age of the adolescent who is becoming pregnant. The risks to the mother and child are significant and well documented. Most agencies and special programs focus upon nutritional, medical, and educational factors; lagging has been research on intervention in terms of social and emotional difficulties. The purpose of this study was to evaluate changes in assertiveness, self-esteem, and locus of control as a result of participation in an assertion training program.

Twenty subjects with an age range of 14 to 21 completed pre and post measures of the Modified Rathus Assertiveness Schedule, Coopersmith's Self-Esteem Inventory, and Rotter's Internal-External Locus of Control Scale. After pretesting, the adolescents were randomly assigned to either the experimental or the control group. Eleven subjects were involved in an assertion training program which met twice a week for five consecutive weeks for a total of ten contact hours. The nine subjects in the control condition met for the same amount of time, and completed values clarification exercises.

Six hypotheses were developed to assess change between pre and posttesting as a result of participation in the assertion training program. To test these, a two-way analysis of variance with repeated measures on one factor

was performed on each variable.

The difference between the groups was not significant on the assertiveness measure, nor was there any interaction effect. The results of the analysis on the self-esteem measure were significant; the assertion training subjects demonstrated an increase in self-esteem at posttesting. Both groups experienced a shift on the locus of control measure to a more internal orientation; neither condition was more effective in facilitating this change.

The writer concluded from this study that an assertion training program is effective in enhancing the pregnant adolescent's self-esteem as well as altering her locus of control. The results were also suggestive of an increase in a tendency to behave and communicate assertively. Thus, assertion training is considered to be a practical and viable method to modify deficits associated with pregnant adolescents.

ACKNOWLEDGEMENTS

I wish to thank all of the members of my supervisory committee: Dr. Len Stewin, who supervised the writing of this thesis with a great deal of support and encouragement; Dr. Vern Nyberg, for giving of his time and knowledge; and Dr. Norah Keating, for her interest and involvement with this project.

Invaluable assistance was also provided by Phil McKenzie, who shared her statistical expertise in the data analysis, as well as Elaine Kryzanowski, who assisted in translating textform.

Special thanks goes to Chris Penney, Director of Woodside Home, for setting aside valuable time for discussion and consultation. Additionally, gratitude is expressed to Deb Allard Usenier, who played an integral role in the running of the groups. Finally, appreciation is extended to all of the girls at Woodside Home for their willingness to participate in this study.

I also wish to acknowledge the patience and support that my family and friends have demonstrated over the past several years; special mention goes to my brother, Kevin, as well as my nieces, Jennifer-Lee and Jessica, who have been constantly teaching me their own brand of "child psychology".

Lastly, sincerest thanks go to Brian Boon, who has provided neverending support and encouragement during the course and development of the final product, this thesis.

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I. Introduction

Adolescent pregnancy is a continuing problem both in Canada and the United States, becoming more obvious as birthrates in the older age groups decrease and numbers of adolescent pregnancies, abortions, and children born out of wedlock increase. In the United States, it is estimated that one out of every ten girls will become pregnant by their eighteenth birthday (Miller, 1983). Baum (1980) provided an identical estimate for the Toronto area, and generalized it to the rest of Canada. In Alberta, it is known that approximately five out of every hundred adolescent girls become pregnant each year (Meikle, Pearce, Peitchinis, & Pysh, 1980). Due to incomplete recording of birth information, and the possibility of leaving the province for abortions and/or childbirth, this latter statistic should be considered to be a conservative estimate of the actual rate of adolescent pregnancy in Alberta.

Concurrent with this increasing rate of adolescent pregnancies has been a decrease in the age of the adolescent as well as an increase in the number of adolescents who are choosing to keep their child. As such, the current emphasis within the province is upon both the prevention of pregnancies as well as the provision of support and services to those adolescents who have become pregnant.

The impact of an unwanted pregnancy on a young woman's life can be overwhelming, and the risks to mother and child are significant and well documented. Concurrent with the

greater awareness of this problem has been an increase in the number of special agencies and programs geared to deal exclusively with this population. Much of the focus of these programs has been on nutritional and medical factors (Berg, Taylor, Edwards, & Hakanson, 1979; Klerman, 1980; Russell, 1982), as well as special education classes (DeRose, 1982; Wallace, Gold, Goldstein, & Oglesby, 1973). A lesser focus has been on remedying or lessening social and emotional problems that these girls encounter. Baum (1980) noted that much of the psychological counseling that pregnant adolescents receive involves the decision to abort, retain, or relinquish, and in terms of skills training, focuses upon child care and parenting. While all of this is very important, it is felt that additional intervention might prove to be valuable which focuses upon problems that pregnant adolescents characteristically have. Bedger (1980) and Jekel (1981) both argue that any program for pregnant adolescents should include a basic triad of services: medical, social/emotional, and educational. There is a need for a truly comprehensive set of services which integrate this basic "three". It is to the emotional factor that this study will be directed.

A. Nature of the Problem

Much of the earlier research on pregnant adolescents has been largely reductionistic in nature. Some researchers have attempted to develop a profile of the adolescent

susceptible to becoming pregnant (Goldfarb, Mumford, Schum, Smith, Flowers & Schum, 1977; Horn & Turner, 1976), while others have stressed one underlying explanation or problem condition as causing unwanted, early pregnancy (Cobliner, 1974; Curtis, 1974). Recent research, however, refutes the notion of a common pathology among adolescent mothers. Baizerman, Sheehan, Ellison, & Schlesinger (1974), Schinke, Gilchrist, & Small, (1979), and Phipps-Yonas (1980) all argue that there is no unique profile common to all or even most pregnant adolescents. However, it is generally agreed that many factors appear to combine to create that particular situation in which an adolescent is most likely to get pregnant (McKenry, Walters, & Johnson, 1979). These factors appear repeatedly in studies which are conducted on adolescents from differing socioeconomic backgrounds, cultures, and geographic locations. Of interest to the present study are the emotional/psychological factors which appear to be associated with adolescent pregnancy.

Appearing in the literature with a high frequency is that childbearing adolescents tend to have low self-esteem (Baum, 1980; Meyerowitz & Malev, 1973; Zongker, 1977), feelings of inadequacy (deAnda, 1983; Juhasz, 1974), lower verbal communication (Juhasz, 1974), as well as an external locus of control (Connolly, 1975; McKenry, Walters, & Johnson, 1979; Phipps-Yonas, 1980). A failure to maintain effective communication has also been related to unwanted adolescent pregnancies (Campbell & Barnlund, 1977). Pressure

from the male (Baum, 1980; deAnda, 1983) and the inability to say no on the part of the young, single woman (Fensterheim & Baer, 1975) appear to be significant factors in unwanted promiscuity, which often leads to unwanted pregnancies. Although studies supportive of the above continue to be reported in the literature, lagging has been the development and implementation of programs to deal with these social and emotional problems.

It was hypothesized that many or at least some of the above factors which are associated with unwanted pregnancy and are found frequently in pregnant adolescents might be remedied through an assertion training program. Assertion training is a compilation of techniques specifically designed to deal with dysfunctional interpersonal behaviors, and to assist the client to behave in more socially outgoing, productive, and appropriate ways. Assertion training treats intrapsychic or mediating variables of behavior as well as specific, overt behaviors. As such, assertion training is seen as a "philosophy of life aimed at acquiring greater self-respect and dignity for the individual" (Cotler, 1975, p. 20). As will be noted in chapter II, the literature suggests that assertion training might be an effective method to change some of the deficits or problems that appear to characterize the population of pregnant adolescents.

B. Definition of Major Terms

Assertive behavior in this study will be defined as that type of interpersonal behavior in which a person stands up for her legitimate rights in such a way that the rights of others are not violated. It is "an honest, direct and appropriate expression of one's feelings, beliefs and opinions. It communicates respect (not deference) for the other person, although not necessarily for that person's behavior" (Jakubowski-Spector, 1973, p. 76).

Adolescence is defined as the developmental period roughly spanning the years between ages eleven to twenty (Adams, 1980; Mitchell, 1986). Adolescence begins with pubescence, the time when a young person becomes capable of reproduction; this may occur sometime between the ages of ten and fourteen. The end point of adolescence is adulthood, the time where the individual has basically attained adult growth levels in the physical, mental, psychological, and social areas; this should occur by age twenty-one (Mitchell, 1986). Adolescence is a transition period between childhood and adulthood, during which the individual is weaned from childish traits and is prepared for the responsibilities of adulthood (Mitchell, 1975).

Pregnant adolescent in this study will include those adolescents who are currently expecting a child as well as those who have very recently given birth. It is assumed that the pregnancies in these adolescents were either unwanted or unplanned.

C. Purpose of the Study

The purpose of this study was to develop, implement, and evaluate an assertion training program with pregnant adolescents. More specifically, the effectiveness of assertion training as compared to a control group completing values clarification exercises (Simon, Howe, & Kirschenbaum, 1978) was assessed utilizing three dependent measures. The dependent measures included pre- and post-measures of assertion, self-esteem, and locus of control. The instruments used to measure these were the Modified Rathus Assertiveness Scale (Vaal & McCullagh, 1977), the Coopersmith Self-Esteem Inventory (Coopersmith, 1981), and Rotter's Internal-External Locus of Control Scale (Rotter, 1966), respectively. More detailed description of the experimental and control treatment packages and the dependent measures appears in chapter III.

D. Importance of the Study

As has been previously noted, the incidence of adolescent pregnancies is increasing; as well, there has been a shift to a greater number of pregnancies within a younger age range. While the optimal long term interventive goal is that of prevention, provisions must be made for those adolescents who are currently pregnant. Pregnant adolescents exhibit diverse characteristics and problems; however, it would appear plausible that an assertion training program might provide a more general intervention

which might lead to valuable changes both related to their pregnancy, to their positions as adolescents in general, and possibly might have effects which could carry over into future decision making and behaving.

It is anticipated that participation in an assertion training program will lead to an increase in assertiveness which will be maintained after termination of training. Fensterheim & Baer (1975) outlined the following four characteristics of the truly assertive person:

> He feels free to **reveal himself**. Through words and actions he makes the statement, "This is me. This is what I feel, think, and want."
>
> He can **communicate** with people on all levels -with strangers, friends, family. This communication is always open, direct, honest, and appropriate.
>
> He has an **active orientation** to life. He goes after what he wants. In contrast to the passive person who waits for things to happen, he attempts to **make** things happen.
>
> He acts in a way **he himself respects.** Aware that he cannot always win, he accepts his limitations. However, he always strives to make the good try so that win, lose, or draw, he maintains his self-respect. (p. 8).

Such characteristics as those described above would appear to be desirable for an adolescent female.

Additionally, an increase in self-esteem as well as a shift in locus of control to a more internal orientation would suggest greater psychological adjustment in terms of both personal and social functioning (Coopersmith, 1981; Rotter, 1966; Waksman, 1984b; Zongker, 1977). The literature has documented these as some of the additional effects of an assertion training program (Alberti & Emmons, 1978; Norem, 1978; Shaw, Wallace, & LaBella, 1980; Waksman, 1984a).

Assertion training involves teaching individuals both verbal and nonverbal components of responding via didactic instruction, modeling, and role play. With this active learning orientation, assertion training leads to an improvement in communication skills as well as an increase in the participant's satisfaction in their relationships with significant others. Thus, assertion training can lead to an immediate change in the participants, and might also have some desirable and long-term effects. These would be logically anticipated, yet are beyond the realm of the current study.

Some anticipated long-term positive effects of assertion training with pregnant adolescents can be classified into three areas: future relationships with boyfriends; prevention of subsequent pregnancies; and child rearing. A number of researchers have suggested that adolescents who have unwanted pregnancies lack control in their relationships (deAnda, 1983), feel powerless (Meyerowitz & Malev, 1973), and succumb to peer pressure for

sexual relations (McKenry, Walters, & Johnson, 1979). Perhaps assertion training might equip these adolescents with the beliefs or knowledge of personal rights and verbal skills to control their relationship. Additionally, it has been noted that effective contraceptors tend to be better communicators, more assertive, and have an internal locus of control (Phipps-Yonas, 1980; Steinlauf, 1979).

Lastly, for those adolescents who choose to retain custody of their infant, knowledge of assertive communication might facilitate control of the child and prevent the abuse of the child due to an insufficient ability to deal with him (Miller, 1983). Women who bear children during their adolescent years tend to be disproportionately represented in relation to statistics on abused children (Baum, 1980; Jekel, 1981; Simkins, 1984). Jakubowski (1977) and Rathus (1975) feel that this might in part be due to the mother ricocheting between nonassertive and aggressive behavior with her child - denying her own needs by sacrificing herself for her child and then aggressively over-reacting to her feelings of helplessness and inadequacy which are triggered when the child cries or is disobedient and constantly making demands of her. Perhaps if the mother were to adhere to an assertive philosophy or way of relating, communicating, and getting her own needs met, she might be better able/prepared to deal with the demands of parenting.

To summarize, assertion training appears to be an intervention program which could remediate social and emotional difficulties of direct relevance to the population of pregnant adolescents. The benefits of the training would appear to be both immediate and delayed, or long-term.

E. Overview of the Study

In this chapter, an introduction to the study, the nature of the problem, as well as the purpose and importance of the study are presented. Chapter II is a review of the literature relevant to the study including research with pregnant adolescents (general, correlates of sexual activity and subsequent pregnancy, self-esteem, locus of control, assertive communication), and research on assertion training (history, important components, use with groups and adolescents, benefits or effects of assertion training). The hypotheses to be tested are found at the end of this chapter. Chapter III describes the methodology employed in the study, and includes descriptions of the subjects as well as the dependent measures. Chapter IV includes the data analysis and results. Chapter V consists of a discussion of the results, limitations of the study, conclusions, and recommendations related to the study.

II. Review of Related Literature

This chapter begins with a review of general research which has been completed with childbearing adolescents, particularily focusing upon personal, social, educational, and economic consequences of early, unplanned pregnancy. This is followed by a presentation of correlates of adolescent sexual behavior and pregnancy. A more in depth consideration will be given to self-esteem, locus of control, and assertive communication. The latter part of this chapter will focus on assertive training, specifically the following areas: the historical development of assertion training; assertive behavior; the effective components of assertion training programs; maintenance of assertive behavior; assertion training in groups and with adolescents; and lastly, the benefits of assertion training as applied to the current study. This chapter concludes with an overview of the hypotheses to be tested in the current study.

A. General Research With Childbearing Adolescents

The problems associated with becoming pregnant as an adolescent are significant and well documented; these fall generally into the areas of personal, social, educational, and economic consequences. Studies indicate that health problems, disrupted or truncated educational progress, inadequate vocational training, economic dependency, marital instability, child abuse, an increased birthrate, social isolation, and slower overall development for the child are

sequels to adolescent childbearing (Chilman, 1980; Olson & Worobey, 1984; Phipps-Yonas, 1980). As Campbell (1968) noted, an adolescent who becomes pregnant and chooses to retain custody of her child suddenly has ninety percent of her life script written for her; unfortunately, much of this tends to be negative.

Pregnant adolescents are known to be of obstetric high-risk. Biological immaturity of the adolescent is thought to be a factor of risk as it signifies incomplete biological and emotional growth. Other relevant factors which are significantly related to the various complications that accompany adolescent pregnancy include lower socioeconomic status, parity, nonwhite race, marginal nutritional status, emotional stress, and delayed or inadequate prenatal care (Baizerman, et al., 1974; Community Task Force on Maternal and Child Health (CTFMCH), 1981; Graham, 1981; Hutchins, Kendall, & Rubins, 1979; Klerman, 1980; Phipps-Yonas, 1980). Toxemia, preeclampsia, eclampsia, anemia, cephalopelvic disproportion, and prolonged labor are a few of the many medical complications frequently cited with respect to adolescent pregnancy. Numerous researchers have commented that age alone is not the significant criterion, but that these negative health outcomes are largely the result of low socioeconomic status and the associated inadequacy of prenatal care (Klerman, 1980; McKenry, Walters, & Johnson, 1979; Russell, 1982). Barring this, however, the consensus appears to be that, regardless

of socioeconomic status or quality of prenatal care, the younger adolescent is consistently at greater risk of negative health outcomes (Cooper, 1982).

Pregnancy during adolescence also has an effect on the adolescent's educational achievement, future vocational aspirations as well as capacity to be self-sufficient. Furstenberg (1976b) noted that pregnancy is the most common reason for girls failing to complete high school, with between fifty to sixty-seven percent of the female dropouts being pregnant. The result of this is often reduced earning power, and dependence on public assistance and the social welfare system (CTFMCH, 1981). Although these effects are lessened when studies control for socioeconomic factors, age at first birth remains a significant factor (Card & Wise, 1978). Most of the girls who drop out of school due to pregnancy fail to return; when compared with their former classmates five and eleven years later, they remain significantly less educated (Card & Wise, 1978; Furstenberg, 1976b). Chilman (1980) noted that early pregnancy alone was not sufficient to destroy an adolescent's future educational plans, and that a strong ambition to continue would promote a return to school by a pregnant adolescent. It is not clear whether most adolescents drop out of school because they are pregnant, or become pregnant so they can have an excuse to drop out of school, or drop out of school first, and then become pregnant. It appears, however, that those who are less connnected to the school system and have little faith

that their education will give them further options are more likely to become mothers.

Early childbearing has adverse effects on later employment; the adolescent parent typically holds a less prestigious job which pays poorly and provides little job satisfaction to the holder. This holds true for both the female as well as the adolescent male who chooses to remain involved in the rearing of the premaritally conceived child (Baum, 1980). The combination of poor education as well as diminished qualifications and experience for jobs is thought to be a significant factor in the teenage mother's dependency on welfare (Phipps-Yonas, 1980). Chilman (1980) offers yet another explanation; since many of the young, unmarried mothers come from "welfare families" initially, it is plausible that they might have continued to receive public assistance regardless of whether they became unmarried mothers. Whatever the cause, whether cyclical or otherwise, it is apparent that adolescent pregnancy and childrearing are costly to both the adolescent and society as a whole.

One of the alternatives to single parenting chosen by adolescents is to legitimize their relationship with the child's father through marriage. The majority of marriages between couples who had premaritally conceived or borne a child, however, tend to be affected by family instability and marital dissolution (Russell, 1982). Sixty percent of adolescent brides seventeen years of age and under divorce

within six years; twenty percent divorce within twelve months (Furstenberg, 1976a). Thus, for most, this appears not to be a very positive choice as it tends to increase the stress in their lives.

Adolescent pregnancy has also been associated with negative parenting styles and a higher reported incidence of child neglect and abuse (Baum, 1980; Bolton, 1982; Scheurer, 1981). Evidence for this, however, has not been established clearly as the studies tend to be based on small and possibly biased samples (Simkins, 1984). Available studies suggest, however, that the younger the parent(s), the higher the risk of child abuse; the abused child is predominantly the result of an unplanned pregnancy (Oates, Davis, Ryan, & Stewart, 1979). Adolescent mothers typically demonstrate little knowledge of the normative development of children; have unrealistic expectations of early development and behavior; appear irritable, impatient, and insensitive; and are prone to using physical punishment (de Lissovoy, 1973; Roosa, 1983). It has been suggested that, in addition to teaching adolescents the stages of development in children, training in assertive verbal communication might prevent the adolescent parent from resorting to harmful methods of dealing with their child (Miller, 1983; Osofsky & Osofsky, 1970).

Over and above all of the previously mentioned difficulties associated with an early, unplanned pregnancy is the fact that women who commence childbearing in their

teens continue to have a high fertility rate, have more unwanted children, and have their children closer together than women who delay their first birth (Meikle, Peitchinis, & Pearce, 1985; Meyerowitz & Malev, 1973; Simkins, 1984). In a follow-up study of adolescents who gave birth between the ages of twelve to fifteen, Miller (1983) found that, within eighteen months post-partum, one out of five had another pregnancy. Keeve, Schlesinger, & Wright (1969) reported that sixty percent of their sample of adolescent females who delivered before the age of seventeen had repeat pregnancies prior to the age of nineteen. Hutton (1968) found that, for an undisclosed period, his one hundred and thirty-seven teenage subjects averaged one birth a year. It would appear from these studies that fertility rate is inversely related to age.

Although there is evidence of an association between school attendance, socioeconomic status and avoidance of second pregnancies (Chilman, 1980), pregnancy prior to age seventeen appears to be the strongest predictor of future reproductive behavior, apparently stronger than either race or socioeconomic status (Meyerowitz & Malev, 1973; Phipps-Yonas, 1980; Simkins, 1984). In addition to exacerbating the demands and stress placed upon the adolescent mother and significant others, second pregnancies during adolescence are associated with higher rates of prematurity and perinatal mortality than first pregnancies (Bedger, 1980; Jekel, Klerman, & Bancroft, 1973).

The economic, educational, and social consequences of initiating childbearing in adolescence, coupled with the added effects of subsequent children, can be extensive and far-reaching, perhaps lasting throughout the rest of the young mother's life. It is important to note that many of the negative effects of early childbearing are found to be independent of color, intelligence and socioeconomic status in that adolescent childbearers from relatively prosperous families are just as seriously affected as those from less affluent backgrounds (Meikle, Peitchinis, & Pearce, 1985). Thus, it is of greatest importance to develop intervention programs geared to the prevention of both initial and subsequent pregnancies. For guidance in this, it is important to understand why adolescents engage in sexual behavior, and subsequently have unplanned pregnancies despite the availability and relatively easy access to contraceptives.

B. Correlates of Adolescent Sexual Behavior and Pregnancy

There are many complex, interwoven variables that appear to be correlated with the increase in sexual activity and pregnancy among adolescents. Researchers have variably attributed this to physical factors, cognitive functioning, a lack of birth control knowledge or refusal to consistently utilize birth control, communication problems, family difficulties, and psychological factors such as self-esteem, locus of control, and lack of assertiveness.

Some writers have indicated that one possible cause of the earlier initiation of sexual activity is the decline in the age of menarche (CTFMCH, 1981; Simkins, 1984), which on average commences at approximately twelve years and nine months (Liebert & Wicks-Nelson, 1981). Additionally, sexual activity in general has increased amongst all social classes and races, and is occurring between adolescents of increasingly younger ages. Meikle, Peitchinis, & Pearce (1985) noted that the periods between fifteen and sixteen and between seventeen and eighteen are the times when adolescents are most likely to begin engaging in intercourse; some may begin as young as eleven. These early years are a time when many are not emotionally or cognitively prepared to deal with intimate relationships and their consequences. While some high schools have provisions for sex education courses, these are typically made available at a time after which many adolescents have already initiated coital activity.

The structure of family life has also been implicated as an important correlate of adolescent sexual activity (Bolton, 1980; Chilman, 1980). With an increase in the divorce rate, many adolescents live in single parent homes, usually with the mother. For economic reasons, the mother is frequently absent from the home, thus increasing the opportunity for coital activity. In addition to a lack of supervision within the home, it was noted that sexual activity was sometimes engaged in to solve problems such as

that of a family breakup (Juhasz, 1976) or lack of a close relationship with the parents (Jessor & Jessor, 1975).

Two studies point to disruption in the family as a contributory factor in adolescent sexual behavior. Russell (1982) found that, in a study of two hundred and thirty-eight adolescents who became pregnant prior to their sixteenth birthday, fifty-five percent had obvious family problems before the occurence of the pregnancy. These problems included separation or divorce between the parents, an alcoholic parent, a close family history of illegitimacy, or a child in care. Miller (1983) in a study of childbearing adolescents between twelve and fifteen years of age found that only eighteen percent of her sample of two hundred and seventy-five girls were living with both natural parents; fifty-one percent resided with their mother alone.

Changes on a societal level have also been implicated in the increase in adolescent sexual activity. Television and other mass media have greatly increased their use of sexual material. Adolescents are currently being exposed to a tremendous bombardment of explicit and implicit sexual material without being offered any meaningful guidelines on how to interpret this material or on how it applies to their own lives (Baum, 1980). In addition to an increase in open sexuality, there have been rapid changes in women's attitudes toward the role of women in society. One major change is the movement toward equality with men including the area of sexual behavior. Therefore, there is now greater

independence and freedom for women to make their own decisions about when, where, and with whom to engage in coital activity (Bloom, Coburn, & Pearlman, 1975; Liss-Levinson, Coleman, & Brown, 1975; Osborn & Harris, 1975). If these are the social realities confronting today's adolescents, it is little wonder that there is an increase in sexual activity.

In addition to physical, familial, and societal factors, researchers have studied factors within the individual which lead to engagement in sexual activity. Important variables which surface repeatedly in the literature include low self-esteem, absence of life goals, lower socioeconomic status, low educational attainment, and minority racial status (Chilman, 1980; Cobliner, 1981; Juhasz, 1976; Nadelson, Notman, & Gillon, 1980). The increase in sexual activity during adolescence is well documented; concurrent with this has been an increase in the use of contraceptives, number of abortions, as well as an increase in the number of unplanned adolescent pregnancies. The reasons for the latter are as varied as the reasons for initially engaging in sexual activity.

Assorted authors have postulated that the increase in the number of unplanned adolescent pregnancies is due to the following: lack of knowledge about bodily functions; lack of contraceptive knowledge or a refusal to properly utilize contraceptives; inadequate communication with significant others; cognitive functioning; or that it's related to their

current stage of development.

There are strong indications that many adolescents are either uninformed or misinformed about their own bodies, reproductive functions, and contraceptive methods (Dryfoos, 1982; Meikle, Peitchinis, & Pearce, 1985; Roosa, 1983). Although the family, particularily the mother, is popularily viewed as the main provider of reproductive and birth control information, interviews indicate that the major source of sex information for adolescents is their peers, of which the level of accuracy is low (Meikle, Peitchinis, & Pearce, 1985; Reichelt & Werley, 1975; Rogel & Zuehlke, 1982). Although the parents are the preferred source of information, Dryfoos (1982) noted that due to denial of the existence of their child's sexuality, not only are many parents reluctant to speak to their children about sexual matters, even if they were willing, parents are not always better informed or knowledgeable in this area. Thus, this view holds that adolescents are becoming pregnant due to a lack of reproductive and contraceptive knowledge. The problem is clearly more complicated than simply a lack of information, though. There is a sizable group who know about contraception, have access to clinics, are aware of the consequences of pregnancy, and yet continue to have coitus without protection. To better understand these individuals, a number of researchers have turned to socioeconomic, personality, and motivational variables that are related to nonusage of contraception.

Mindick & Oskamp (1982) found that effective use of contraception is related to adequate socialization, positive self-concept, a disposition to seek and use knowledge, and a willingness to look ahead and plan for future contingencies. There is evidence, also, that effective contraceptors are more assertive (Phipps-Yonas, 1980) and are more internal in their locus of control (Steinlauf, 1979). Contraceptive discontinuation or nonuse has been associated with actual or feared side effects, incorrect knowledge about use, or opinions that contraception interferes with sexual spontaneity or enjoyment (Jones & Philliber, 1983; Nadelson, Notman, & Gillon, 1980; Rogel & Zuehlke, 1982). Olson & Rollins (1982) explored several variables presumed to be associated with "psychological barriers" to contraceptive use among unmarried, adolescent women. They found that actual availability was not a good indicator in terms of family planning, but that many women perceived the most effective methods to be unsafe or dangerous, and thus, as "psychologically unavailable". Thus, availability appears not to be a good predictor of actual usage. Additionally, ambivalence about acknowledging one's sexuality has been reported to interfere with successful contraception (Rogel & Zuehlke, 1982). The use of contraception forces one to admit his or her sexuality, something many young people are not comfortable doing. Risking pregnancy may be less psychologically stressful than admitting sexuality by contracepting.

Better communication with parents, peers, and sexual partners has also emerged as predictive of consistent contraceptive use, later age at initiation of sexual activity, and avoidance of pregnancy (Chilman, 1980; Thompson & Spanier, 1978). Campbell & Barnlund (1977) found significant differences in interpersonal communication patterns between never-pregnant women and women who had had two or more unplanned pregnancies. They concluded that the problem of unplanned pregnancy is, at least in part, a consequence of failure to maintain adequate communication with significant others. Schinke, Gilchrist, & Small (1979) noted a paradox of adolescent development related to this: "normal development equips adolescents for physical intimacy, but often leaves them without the communication and interpersonal skills necessary to regulate intimacy" (p. 83). In addition to deficits in communication skills, researchers have examined the cognitive functioning of adolescents who risk or succeed in becoming pregnant.

Information on contraception is readily available as is access to appropriate devices. Why, then, do so many adolescents engage in coital activity unprotected? Although reference has been made in the literature to an 'unconscious desire to get pregnant' (see Mitchell, 1986), the great majority of sexually active adolescents who become pregnant are not pregnant intentionally (CTFMCH, 1981). Cognitive functioning has been examined as a factor in explaining why adolescents are continuing to become pregnant (Baizerman,

1977; Jones & Philliber, 1983). Specifically, researchers have drawn upon Piaget's theory of cognitive development to better understand adolescents' inability to effectively prevent pregnancies.

Piaget (1973, 1975) felt that cognitive development proceeded through four distinct periods. Of relevance to adolescence are the latter two. During the period of concrete operations (approximately age seven to eleven years), the child is capable of performing operations related to concrete objects, develops a more objective view of the world, and develops a more realistic concept of causation. Beginning with preadolescence, individuals begin to display the ability to engage in formal reasoning on an abstract level. The period of formal operations begins between the ages of eleven and fifteen, and within this level of functioning, the adolescent is able to draw hypotheses from her observations, imagine hypothetical as well as real events, and to consider all possible explanations to a problem. Cobliner (1974) studied the role of cognitive function in adolescents with unplanned pregnancies, and concluded that adolescents who became pregnant were not able to anticipate cause and effect as related to Piaget's operative thinking. Cobliner felt that this had a direct impact upon the adolescent's nonuse or misuse of contraception, as effective contraception requires one to implement action in terms of means and ends. Cobliner believes that all contraceptive methods, except the IUD

require operative thinking.

Egocentric thinking has also been implicated as a significant factor in adolescent pregnancy. Adolescents who exhibit this might explain their pregnancy in terms of Elkind's personal fable, "it wouldn't happen to me; I thought I wouldn't get pregnant" (Baizerman, 1977; Cobliner, 1981; Elkind, 1976). These individuals believe that they are invulnerable, and consequently take chances. Cobliner (1981), in a study of one hundred and forty-three adolescents who had unintentionally conceived, found that the great majority (seventy-one percent) of them provided a reason or circumstance that directly reflected egocentric thought as the justification for their engaging in sexual activity without protection. The conclusion to be drawn here is that adolescents are poor contraceptors because their cognitive processes lead to unrealistic thinking, a general lack of planning, and consequent risk taking.

Sexual activity and childbearing are seen by some adolescent women as a source of self-esteem (Cobliner, 1981; Kane & Lachenbruch, 1973), as fulfilling a need for acceptance (Barglow, Bornstein, Exum, Wright, & Visotsky, 1968), and as providing a socially acceptable role (Phipps-Yonas, 1980). Erikson (1950) noted that the central developmental task of adolescence is the development of a sense or feeling of identity; this involves an assimilation of the elements of identification - capacity, ideals, and opportunity, into a viable self concept. If this is not

accomplished, the adolescent faces the danger of an identity crisis, as well as the failure to develop a sense of self worth. Erikson wrote that role diffusion could occur if there was doubt as to one's sexual identity. This would result in the adolescent over identifying with the peer group, with a loss of her individual identity. An additional concern is the adolescent's need to find an acceptable role or career in society. The fact that the maternal role is viewed as acceptable, if not highly desirable, and also provides a definite role (motherhood, parent) for the adolescent female has been implicated as a reason why so many adolescent females fail to use contraceptives and consequently conceive by default (Miller, 1983; Phipps-Yonas, 1980; Von Der Ahe, 1969). It is plausible that adolescent females see few options open to them, and thus, choose motherhood. Support for this idea might be garnered from the fact that between seventy-five to ninety percent of pregnant adolescents retain custody of their infants (DeRose, 1982; Lightman & Schlesinger, 1982), and also that those adolescents who are less connected to the school system and have little faith that their education will give them further options are more likely to become mothers (Dryfoos, 1982). In order to pass successfully through this developmental phase, the adolescent must devote herself to the tasks of gaining control over her impulses, separating from her parents, finding a new love object, and working toward appropriate educational and vocational goals. Perhaps

motherhood provides a resolution to this.

Whether explaining sexual activity, contraceptive use, or pregnancy, important changeable or modifiable variables include self-esteem, locus of control, and assertive communication. The next three sections will explore each of these in greater depth as they relate to the problem of adolescent pregnancy.

C. Self-Esteem

Self-esteem is "a set of attitudes and beliefs that a person brings with him- or herself when facing the world" (Coopersmith, 1981, p. 1). An individual's conception of himself influences his behavior, his style of interaction with others, his attitudes, motivations, and level of functioning within society. It is often stated that a positive self-concept is vital to an adolescent's well being, and that adolescents' behavior and experiences are largely determined by their self-concepts (Rogers, 1977). It is further asserted that adolescence may be the "optimum time" for making efforts to enhance self-concepts (Mitchell, 1975; Rogers, 1977).

The relationship between self-concept and self-esteem has been delineated by Calhoun & Morse (1977). Self-concept is the way an individual perceives himself and his behavior and his opinion of how others view him, while the satisfaction with that self-concept is identified as self-esteem. This distinction is very important when the

relative stability of self-concept and self-esteem are considered. The self-concept can apparently be altered only gradually, while self-esteem is a more variable indicator of satisfaction with one's self, and may be considered as an index of mental health related to personal comfort, strength, and ability (Coopersmith, 1981).

A high level of self-esteem is typically associated with psychological adjustment. Dorr, Rummer, & Green (1976) found linear relationships between scores on a self-esteem inventory and personal and social adjustment. It has been well documented that prematurely sexually active and childbearing adolescents tend to have a negative self-concept, and low self-esteem (Juhasz, 1974; Meyerowitz & Malev, 1973; Olson & Worobey, 1984; Ralph, Lochman, & Thomas, 1984; Zongker, 1977).

Kimball (1969) contends that adolescent mothers, without exception, are characterized by low self-concept and very little belief in their ability to win affection or respect from others. Zongker (1977) found that compared to a control group, pregnant adolescents exhibited poorer self-esteem, greater feelings of inadequacy and unworthiness, and more dissatisfaction with family relationships and body image. Finally, Kaplan, Smith, & Pokorny (1974) found in their study of pregnant versus nonpregnant adolescents that the former group was less able to cope with threats to self-esteem, tended to view experiences with family, school and peers as devaluing, and

were less likely to display self-accepting attitudes.

An important question relating to this area should be addressed. Is this low level of self-esteem a result of the negative reactions of self and others to the pregnancy, or did it exist prior to the pregnancy? The results of a number of studies suggests that the low self-esteem is a precursor to the engagement in sexual activity and subsequent pregnancy (Abernethy, Robbins, Abernethy, Gruenbaum, & Weiss, 1975; Kaplan, Smith, & Pokorny, 1974). It is evident that level of self-esteem is a significant factor in the willingness to engage in premarital sexual activity, the risk of an unplanned pregnancy, and the subsequent decision to become an unwed mother, with all of the negative consequences that are associated with it. As a modifiable factor, it appears plausible that an increase in self-esteem might lead to better psychological adjustment in pregnant adolescents as well as possibly play a role in the prevention of a rapid repeat pregnancy. Another factor, locus of control, has also been related to this, and will be examined in the next section.

D. Locus of Control

Rotter's locus of control construct is a classification of individuals according to the degree to which they accept personal responsibility for what happens to them; it reflects their orientation or belief about the nature of the world. Internal control refers to the perception of positive

and/or negative events as being consequences of one's own actions and therefore under personal control; external control refers to the perception of positive and/or negative events being unrelated to one's own behavior, but the result of chance or fate, and therefore beyond personal control (Rotter, 1966).

Considerable research has been completed on the construct of locus of control, the majority of which attempted to define characteristics or other factors associated with "internals" as opposed to "externals". The validity of the construct is under question as a result of some conflicting findings pertaining to the homogeneity of the external factor (Hersch & Scheibe, 1967), as well as the finding that internals do not always have a more positive approach to life (Hawkins, 1972; Janzen & Beeken, 1973). It has generally been accepted, however, that an internal orientation is desirable as it tends to indicate a positive, well-functioning individual. Ashton (1974) suggests that internal control is a critical factor in determining degree of motivation. Johnson & Kilmann (1975) noted that internals are more confident in their abilities to solve problems, while Lefcourt (1976) found that internal ratings of locus of control correlate with healthier psychological adjustment and greater school achievement. Overall, it would appear that an internal orientation is a positive attribute, and the literature is suggestive that it is a modifiable construct.

The locus of control construct appears quite frequently in the literature relating to adolescent pregnancy. With the exception of a study completed by Segal & DuCette (1973) comparing black and white pregnant adolescents, the literature quite strongly points to the fact that adolescents who become pregnant tend to have an external locus of control (Connolly, 1975; Meyerowitz & Malev, 1973; McKenry, Johnson, & Walters, 1979; Seeley, 1976; Steinlauf, 1979). In explaining this, researchers have pointed to studies on effective versus ineffective contraceptors; these conclude that effective contraceptors tend to be more internal in their locus of control, and thus, feel personally responsible for the effects of their actions. As was previously noted, the locus of control variable is a modifiable construct; it would appear that a shift in orientation in pregnant adolescents from external to more internal might be a positive factor in their future use of contraceptives, and thus, perhaps prevent the rapid, subsequent pregnancies which are known to be very detrimental.

E. Assertive Communication

The need for the development of assertive communication skills or greater assertiveness in general in childbearing adolescents has been noted both directly and indirectly in the literature. Much of this pertains to the adolescents' relationships with significant others, particularly her

sexual partner. As has been previously noted, adolescents experience more pressure today than in previous generations from peers and the media to experiment with sex. Adding to the confusion is the fact that little communication occurs within the family about sexual matters. A recent study by Jorgensen, King, & Torrey (1980) revealed that the less interpersonal power and influence an adolescent female has in a heterosexual relationship, the greater the pregnancy risk she faces. This is a function of both increased frequency of sex, and a decreased utilization of contraception.

Pressure from the male (Baum, 1980; deAnda, 1983; Sacker & Neuhoff, 1982), and the inability to say no on the part of the young, single woman (Fensterheim & Baer, 1975) appear to be significant factors in unwanted promiscuity, or sexual activity which often leads to unwanted pregnancies. Hass (1979), in a survey of female adolescents, found that forty-eight percent of those aged fifteen to sixteen years had unwanted sexual contact because they felt pressured, intimidated, and were unable to say no. In Furstenberg's (1976a) study, the majority of pregnant adolescents - particularily the youngest in the sample - indicated that pressure from the male was a major impetus towards sexual activity. Lastly, as Fox & Inazu (1980) found in a study of adolescent females, the information they wanted most was how to handle boyfriends in situations before the point of intercourse. It would appear that the younger the

adolescent, the more difficult it may be for her to employ the assertiveness necessary to exert sufficient control over the relationship and its consequences for her.

Adams (1980) noted that adolescent females need to become more assertive in pursuing professional assistance (ie: for contraception) and also assertive in encouraging the involvement of their partner. Arnold (1972) found that only seventeen percent of sexually active couples in his study had discussed birth control. A double standard in contraceptive behavior still appears to be much in evidence (Scales, 1977). It is plausible that learning and practicing to assertively communicate with others, including parents and helping professionals might develop greater feelings of control and power within adolescent females, which in turn might decrease the possibility of them engaging in coitus in less than optimal circumstances.

Pregnant adolescents are best served by a multidisciplinary team because of their multifaceted needs. It is plausible that psychological intervention in the form of an assertion training program might assist them by increasing their self-esteem, changing their locus of control to a more internal orientation, and teaching them assertive communication skills.

F. Historical Overview of Assertion Training

The concept of assertiveness training has its roots in behavior therapy; although its history began with the publication of Andrew Salter's book Conditioned Reflex Therapy in 1949, most of the current practices follow from the work of Wolpe (1958; Wolpe & Lazarus, 1966), and more recently, the work of Alberti & Emmons (1978), Galassi & Galassi (1977), and Lange & Jakubowski (1976). The current trend is to view assertion training as an amalgamation of the behavioral and humanistic approaches (Cotler & Guerra, 1976); the training involves a wide variety of behavioral techniques to achieve a basically humanistic goal, to acquire greater self-respect and dignity for the individual.

Salter (1949) initially developed this procedure as a treatment for clients with neurotic social anxiety. His essential proposition was that lack of assertiveness was due to inhibition, and on this basis, outlined six "excitatory" exercises which were meant to reduce this inhibition. Salter's approach was not well accepted by practicing clinicians for several reasons. Salter's extreme attitude that assertion training should be used for virtually every psychological disorder, as well as his blatant disregard for the consequences of spontaneous, impulsive self-expression, offended most clinicians who might otherwise have used his technique.

The practice of assertion training did not reappear until Wolpe presented his theories. Initially, Wolpe (1958)

assumed that lack of assertiveness was the result of maladaptive fears, and that these fears were reciprocally inhibited by engaging in assertive behavior. In addition, he maintained that assertive responses could be programmed into the client's behavioral repertoire to elicit the inhibited response as well as prevent the anxiety reaction. In later writings (Wolpe & Lazarus, 1966), he allowed that clients may also be non-assertive "not because of anxiety, but because they have never had the opportunity of acquiring the necessary habits" (p. 40).

Wolpe's conceptualization of assertion was not as extreme as that of Salter. First of all, he did not assume that every client was in need of assertive training. Rather, he viewed lack of assertion as a separate problem, distinct from other maladaptive behaviors. Secondly, he did not view assertiveness as a generalized trait as did Salter, but instead realized that an individual could be assertive in one situation and not in another. Finally, he was more willing to recognize the consequences of uncontrolled assertion. These factors, combined with the fact that clinicians were now ready to accept behaviorally oriented theories, account for the acceptance of Wolpe's techniques.

Assertiveness training's popularity rose dramatically in the 1970s, as evidenced by the number of books and studies published during this time period (ie: Alberti & Emmons, 1978; Fensterheim & Baer, 1975). In spite of this increased attention, though, the concept of assertiveness

has not been defined in a concrete manner nor does there exist a structured, systematic assertion training program. The definition of assertive behavior which was favored for the present study was presented in chapter I. It is important to note that, regardless of whatever definitional difficulties currently exist, the basic procedure of training assertive responses is fairly well accepted. Following will be a discussion of what constitutes assertive behavior.

G. Assertive Behavior

Different types of assertive behavior have been delineated in the literature. It is assumed that a comprehensive assertion training program will include provisions for development in all areas. Wolpe (1969) differentiated between "hostile" assertive responses and "commendatory" assertive remarks noting that the focus of many programs has been on the former. Steel & Hochman (1976) separated the verbal responses into two categories: active and reactive. Wolpe's typology is shared equally between each of these groups. Galassi & Galassi (1977) propose a three-way categorization of responses into the following: expressing positive feelings, self-affirmation, and expressing negative feelings. Regardless of how the verbal responses are categorized, most current assertion training packages have provisions for teaching each type of response.

Many writers feel that nonverbal components of assertive behavior merit equal attention, and provide explicit methods/ exercises to train participants in this area (ie: Alberti & Emmons, 1978; Serber, 1972; Steel & Hochman, 1976). Typically, the nonverbal components which are focused upon include eye contact, body posture, facial expression, hand movements, latency of response, loudness, affect, distance, and fluency of spoken words. In general, high-assertive subjects tend to maintain eye contact, have a relaxed body expression, appropriate or congruent facial expression, decreased latency of response with greater affect and volume while maintaining an appropriate distance from the other person (Eisler, Hersen, Miller, & Blanchard, 1975; Shaw, Wallace, & LaBella, 1980). The next section will explore the effective components of assertion training programs.

H. Effective Components of Assertive Training Programs

Rich & Schroeder (1976), Eisler, Hersen, Miller, & Blanchard (1975), and Sansbury (1974) have pointed out that assertive responding involves the coordinated delivery of a variety of verbal and nonverbal behaviors. Thus, the development of assertiveness is a relatively complex undertaking and as such, the methods or techniques employed to teach assertion are equally as involved (Hersen, Eisler, & Miller, 1973; Rathus & Ruppert, 1973; Friedman, 1971). Generally, assertion training programs incorporate

instruction, modeling, role-play, performance feedback, and cognitive-behavioral modification.

Instruction

Instructional variables include a vast array of ideas and concepts that surround the philosophy, theory, or rationale behind assertion training. In this category, one might include a statement of the values that the trainer feels underlies assertion training, or a differentiation between self-interest and selfishness. One popular method for this is bibliotherapy, or the dispersal of selected reading material to explain various concepts, such as basic human rights, irrational beliefs, ways to self-evaluate one's progress, or other educative resources. Examples of this can be found in Steel & Hochman (1976) and Galassi & Galassi (1977).

Behavioral Modeling

Many of the studies of the individual components of the training package have incorporated modeling procedures as one of the variables. Behavioral modeling is the process whereby the facilitator plays the trainee's role in a specific situation in order to model or demonstrate ways in which the trainee might appropriately respond in that situation. Albert Bandura (1977) maintains that most human behavior is learned observationally through modeling. Modeling has been demonstrated to be an effective technique

in facilitating the learning of complex new responses in a wide variety of areas. As such, modeling is felt to be an ideal adjunct to training in assertive behavior.

Modeling has been employed as an effective therapeutic technique to alter nonassertive behavior in adults, psychiatric patients, college students, and adolescents (Friedman, 1971; Hersen, Eisler, Miller, Johnson & Pinkston, 1973; McFall & Lillesand, 1971; McGuire & Thelen, 1983; Stake, DeVille & Pennell, 1983). Different modalities have been utilized as part of the treatment for developing assertiveness; these include live models (Friedman, 1971), audio (tape-recorded) models (McFall & Lillesand, 1971), and film-videotape models (Jakubowski-Spector, 1973). Available evidence does not provide unequivocal support for one modality over another.

Studies which have assessed the relative merits of modeling in assertion training have produced conflicting results. Some investigators have reported strong modeling effects (Eisler, Hersen, & Miller, 1973; Kazdin, 1974; Young, Rimm & Kennedy, 1973); others have found no modeling effects (McFall & Twentyman, 1973). Falling in between are investigators who have obtained mixed results of one kind or another (Fehrenbach & Thelen, 1981).

Save for the McFall & Twentyman (1973) study, all of the others found that modeling, either alone or paired with another technique, had a significant effect in teaching assertive behavior as compared to the control conditions.

Fehrenbach & Thelen (1981) found that the additional information provided by assertive models was beneficial on the trained situations, but did not facilitate generalization to novel role-played situations; thus, modeling's benefits were quite specific in scope. McFall & Twentyman (1973), in a series of four experiments assessing the contributions of rehearsal, modeling, and coaching to an assertion training program, found that symbolic modeling added little to the effects of rehearsal alone or rehearsal plus coaching. This effect, or lack thereof, remained regardless of the type of assertive models employed (tactful versus abrupt), or the media employed in presenting the models (audiovisual versus audio). This result was not explained; a possible reason for it could have been the lack of reinforcing consequences following the modeled behavior. Also, modeling alone was not a condition in this study to assess whether it would have been superior to the controls.

Generally, it appears that modeling is a useful adjunct to any assertion training program, and its effects are even greater when paired with instructions (feedback) or reinforcement. The modeling literature suggests that modeling effects may be enhanced by modeling displays that are vivid, novel, and that contain several models of the same sex and age as the observer; by displays showing models of high status, competence, and power; by models rewarded for engaging in assertive behavior; and by displays that contain instructions to attend to relevant cues (Bandura,

1977).

Behavioral Rehearsal

Behavioral rehearsal has also been an important technique in the treatment of nonassertive behavior; Lazarus (1966) noted that it is one of the major techniques used during a typical assertion training program. Behavioral rehearsal, also referred to as role-playing or response practice, appears to be one of the most promising, yet least studied of the available therapy approaches. McFall & Marston (1970) offered three possible reasons for this lack of systematic research. First, the behavior rehearsal treatment procedure appears to be complex, unsystematic, and unstandardized, relative to other behavior therapy techniques. Second, the behavior rehearsal technique is typically applied to behavior classes that lack sufficient definition or specificity. Third, it is difficult to obtain satisfactorily reliable and objective laboratory and/or real-life measures of the behaviors typically treated with behavior rehearsal. McFall & Marston suggest that a successful experimental investigation of behavior rehearsal will partially depend upon the development of a standardized treatment procedure.

The major difference between behavioral rehearsal procedures and modeling procedures for behavior change is that the subject is usually required to participate actively in overt verbal and gestural behavior during behavioral

rehearsal and not during modeling (Friedman, 1972). McFall & Marston (1970) found that behavioral rehearsal either with or without performance feedback was effective in teaching assertive behavior, with the former treatment condition having the strongest effect. Hedquist & Weinhold (1970) found that a behavior rehearsal group emitted more assertive verbal responses than a placebo control group. Finally, Eisler, Hersen, Miller, & Blanchard (1975) using role-played situations, found significant differences on a number of verbal and nonverbal component behaviors related to assertion between high and low assertive subjects. The results indicated that high assertive subjects tended to talk longer, with greater affect and speech volume, and smiled less frequently than low assertive subjects. Behavioral rehearsal is important to the participants in that it enables them to practice new response modes in a relatively "safe" environment.

Performance Feedback

First attempts at assertive responding are likely to be gross, awkward, and inefficient (Wolpe, 1969). Therefore, operations which are designed to refine and stabilize the response are often included in the training procedures. Performance feedback in the form of audio or video playback, therapist coaching, group reinforcement, or mere personal reflection on one's own performance have all been employed in studies of assertiveness training (Hersen, Eisler,

Miller, Johnson, & Pinkston, 1973; McFall & Lillesand, 1971; McFall & Marston, 1970; McFall & Twentyman, 1973). All of the above can be considered to be response shaping or strengthening operations.

No research has focused solely on the relative value of these forms of feedback for assertiveness training, but a number of studies are suggestive of an additive effect. Hersen, Eisler, Miller, Johnson, & Pinkston (1973) found that a combination of modeling and instructions was superior in teaching five out of seven components of assertive behavior, while instructions alone was best to promote a change in loudness of response. Young, Rimm, & Kennedy (1973) found that modeling with or without verbal reinforcement was superior in improving assertive behavior, but that verbal reinforcement did not significantly augment the effect of modeling.

Kazdin (1974) examined the effects of covert modeling with or without reinforcement (favorable consequences resulting from an assertive response) in developing assertive behavior. He found that both conditions were effective in teaching assertive skills, but that the reinforcement condition showed the greatest effect. McFall & Twentyman (1973), in their series of four experiments, reported that the training components of behavioral rehearsal and coaching both made significant additive contributions to improved performance on self-report and behavioral assertion measures.

Both external and self-reinforcement systems are likely to be involved in promoting and strengthening the assertive response; in some cases the subject is actually taught principles of self-reinforcement (Rich & Schroeder, 1976). More often, though, verbal reinforcement in the form of praise and acknowledgement from the leader or group members serves to strengthen the response. The strongest reinforcement, however, is likely to occur as a consequence of successful attempts at assertiveness in the real-life setting with significant others.

Cognitive Restructuring

Many writers in the area of assertion training consider cognitive restructuring to be an integral part of any assertion training program. Although most of the earlier studies did not address this component directly, later writers have integrated some form of cognitive and expectancy manipulation into their training procedures.

Subjects in assertion training groups are typically given a rationale about the importance of assertive behavior, how nonassertive or aggressive behavior is learned, why either of these are maintained despite their maladaptiveness, and how assertive behavior can be learned and nonassertive or aggressive behavior eliminated. Thus, assertive behavior is construed as a highly desirable, perhaps essential behavior (Rich & Schroeder, 1976).

Some therapists (Lazarus, 1971; Steel & Hochman, 1976) employ rational-emotive procedures as part of assertion training. Clients are made aware of covert verbalizations and derivative cognitive sets (ie: unrealistic approval needs) that are maintaining nonassertive behavior. The client is then often taught new "self-talk" to maintain newly acquired assertive responses. Ellis (1975) has noted that rational-emotive techniques can also be used with positive results with adolescents.

Jakubowski-Spector (1973) also emphasized the importance of building a personal belief system which would help the client to support and justify their acting assertively. She noted that this is important so that the client could continue to believe in their right to act assertively even when unjustly criticized for their assertive behavior; could overcome or counteract any irrational guilt which might occur as a result of having asserted oneself; can be pleased and proud of their assertion even if others are not pleased with this behavior; and in the future, will be more likely to assert oneself. Evidently, an important part of this belief system concerns the client's acceptance of certain basic interpersonal rights. Examples of the integration of this component into assertion training programs can be found in Lange & Jakubowski (1976), Wolfe & Fodor (1975), and Steel & Hochman (1976).

Generalization of Training Effects

The goal of assertion training is obviously not only to teach the subject to behave assertively within the confines of the experimental or training setting, but also to include provisions for the transfer of training to real life situations. Without provisions and opportunities for clients to test newly acquired skills under real-life conditions that are likely to produce rewarding consequences, transfer is likely to be minimal (Bandura, 1969).

Very few of the earlier studies attempted to assess the generalization of treatment effects and transfer of training into different contexts. These found evidence that only limited transfer of training takes place. McFall and his associates (McFall & Marston, 1970; McFall & Lillesand, 1971) developed a surreptitious method for assessing the effects of assertive training in which subjects' reactions to a confederate "high-pressure" salesman were obtained. In both follow-up studies, the differences between the experimental and control groups were not significant, but the results were in the expected direction. In light of the brevity of treatment in these typical analogue experiments, though, it is not surprising that the results were relatively weak. Furthermore, no attempts were made to program generalization into these experiments. In studies which restricted assessment of transfer to those behaviors actually manipulated during treatment, positive transfer was noted (Kazdin, 1974; McGuire & Thelen, 1983). It is evident,

then, that employing treatment of a more realistic length along with allowing the practice of newly acquired assertive behavior in the subject's natural environment would be more conducive to transfer of training effects. Provisions for this are made in the current types of assertion training programs.

Eisler, Hersen, Miller, & Blanchard (1975) noted that assertive behavior is quite highly situation specific; thus, it would appear that role-playing a wide variety of situations would maximize generalization. Friedman (1971) noted that allowing for improvised role-playing leads to greater transfer of effects as opposed to directed role-play. This greater transfer likely results from the greater responsibility by clients during therapy to devise their own solutions to assertion challenges.

An additional method by which to increase generalization is the use of homework assignments (Galassi & Galassi, 1977). Clients are instructed to self-monitor situations in which assertive behavior would be appropriate, their typical response to the situation, their attempts at being more assertive, and the consequences that assertive behavior produces (Rich & Schroeder, 1976). Real-life experiences are then discuseed in the group, and suggestions and recommendations are provided.

Graded structure is typically employed in these transfer operations. The subject first attempts to be assertive in situations that are non-threatening and likely

to produce rewarding consequences before attempting to act assertive in more difficult and anxiety-producing situations. Significant others in the subject's real-life environment may be taught to reinforce his or her newly acquired assertive behavior to facilitate generalization and transfer (Reece & Wilborn, 1980).

Assertion Training Treatment Package

To integrate the above, all assertion training programs should have provisions for response acquisition via modeling; response reproduction via behavioral rehearsal; response shaping and strengthening via performance feedback, coaching, and reinforcement; cognitive restructuring via the development of a belief system and rational-emotive procedures; and finally, the transfer to real life via homework assignments and role-playing in a variety of situations.

Most researchers who have combined the various treatment components of assertion training have found that the stongest effects occur with combinations as opposed to individual components (Friedman, 1971; Hersen, Eisler, Miller, Johnson, & Pinkston, 1973; Kazdin, 1974; McFall & Lillesand, 1971; McFall & Marston, 1970; McFall & Twentyman, 1973; McGuire & Thelen, 1983). It is plausible that combining components has an additive effect which promotes the greatest effects. As an illustration, Friedman (1971) pointed out that "the hypothesized mediating variables to

account for the efficacy of modeling and directed role-playing (covert perceptual-cognitive images, covert rehearsal, overt rehearsal) may summate; and consequently foster greater changes in assertiveness than in either of these conditions separately" (p. 166).

I. Maintenance of Assertive Behavior

There is evidence available which suggests that once assertive skills have been learned and incorporated into the subject's behavioral repertoire, they are maintained well after the involvement with the program. In a one year follow-up of subjects who had received assertion training, Galassi, Kostka, & Galassi (1975) found that the experimental and control groups were still significantly different on both self-report and behavioral measures. They interpreted these results as an indication of long-term effects of assertion training.

Stake, DeVille, & Pennell (1983), in a three month follow-up of an assertion training program with high school adolescents, also found that the girls maintained their new assertive behaviors. Friedman (1971) trained male and female college students with low assertiveness, and completed a follow-up assessment of their assertive behavior two to four weeks after termination of the training. He found that the experimental groups not only maintained their self-reported and behavioral levels of assertiveness, but that some subjects actually demonstrated an even higher level of

assertive behavior at follow-up.

The results from the above mentioned studies provide support that the change in assertion appears to be relatively enduring, and that with time and perhaps continued practice of assertive behavior, levels of it can increase. Perhaps through this process, assertive responding becomes a more natural and spontaneous part of the individual's behavioral repertoire.

J. Assertion Training in Groups

Assertion training is a compilation of techniques which are designed to help the inhibited or aggressive client behave in more socially outgoing, productive, and appropriate ways. While assertion training can be conducted on a one-to-one basis, the social nature of it suggests that it would be particularily effective in groups, and a number of researchers and therapists prefer to conduct assertion training in the context of a group (Alberti & Emmons, 1978; Cotler, 1975; Osborn & Harris, 1975; Wolfe & Fodor, 1975).

Alberti & Emmons (1978) have noted the advantages of a group setting in that feedback, reinforcement, modeling, and support from other members sharing similar difficulties may be provided. By utilizing the group setting, the subject can obtain the much needed support and encouragement from others as he or she begins to make progress and try out new behaviors. There is some evidence that group consensus concerning what is appropriate behavior may carry more

weight than the therapist's single viewpoint (Cotler, 1975; Rathus, 1975); and group problem-solving may provide a wider range of suggestions concerning possible responses to a given situation. In addition, members' assertive skills may be strengthened through their modeling assertive responses for another group member (Lange & Jakubowski, 1976), or having the opportunity to "coach" other members (Flowers & Guerra, 1974). The group provides a safe atmosphere in which attempts at assertion are encouraged and reinforced; immediate response/feedback can be attained in a group, and the impact of getting reinforcement from several peers at one time likely makes a greater impact on the individual. The availability to practice assertive behaviors with a variety of individuals may serve to facilitate the generalization of practiced assertive behaviors to others outside of the group (Lange & Jakubowski, 1976).

A controversy in the literature pertaining to groups deals with the question of which type of group composition is more beneficial: homogeneous or heterogeneous. Lazarus (1971) noted that groups which are relatively homogeneous are more effective and also easier to conduct. It was thus recommended by Steel & Hochman (1976) that facilitators select group members according to factors such as similarity in age, sex, socioeconomic background, race, intellectual level, and interpersonal deficits. This type of selection would have benefits in terms of similar content in role-plays and perhaps a setting more conducive to modeling

effects.

A number of researchers are proponents of heterogeneous composition of the groups, though (Cotler, 1975; Hollandsworth & Wall, 1977; Sansbury, 1974). Hollandsworth & Wall (1977) noted that there is support for the assumption that women have problems being assertive that are uniquely different from those of men. However, if groups are composed entirely of members of the same sex, the areas of concern will be similar, but the exclusion of one sex from a group denies the opportunity for role-playing situations involving the opposite sex. It also reduces or eliminates the opportunity to observe live, same-sex models deal assertively with an opposite-sex confederate. The same can be said about age and background. Thus, it would appear that a heterogeneous composition would be superior for behavior rehearsal. The use of homework assignments might assist in offsetting this bias in contact with dissimilar individuals for individuals in a homogeneous composition group.

To summarize, many researchers feel that a group approach to assertion training is superior to one-to-one work for a number of reasons. There appears to be benefits to having either a heterogeneous or homogeneous group composition; further research is needed to unequivocally state which is superior.

K. Assertion Training With Adolescents

Assertion training has been demonstrated to be effective in increasing the degree of assertiveness in social situations with a variety of populations including psychiatric patients (Hersen, Eisler, Miller, Johnson, & Pinkston, 1973), juvenile delinquents (Garnett, 1977), Mexican-American mothers (Landau & Paulson, 1977), Asian-Americans (Hwang, 1977), male college students (Fehrenbach & Thelen, 1981), female college students (Rathus, 1972; Young, Rimm & Kennedy, 1973), female adults (Adams, 1979; Bloom, Coburn, & Pearlman, 1975), and children (Rashbaum-Selig, 1976; Thoft, 1977). All of the above studies employed group training procedures, and many of them reported positive changes in the participants over and above the changes on the assertion measures. This will be elaborated on in the next section of this chapter.

Of importance to the current study is research on the efficacy of assertion training with adolescents. A number of researchers have developed and implemented assertion training programs with adolescents (Breidenbach, 1977; McPhail, 1977; Norem, 1978; Rathus & Ruppert, 1973; Reece & Wilborn, 1980; Stake, DeVille, & Pennell, 1983; Waksman, 1984ab). With the exception of Norem's (1978) study, all of the above researchers found increases in assertive behavior in the participants as well as changes in other areas. Norem (1978) found no significant changes on the Rathus Assertiveness Schedule, but found that the assertion group

subjects demonstrated an increase on the Tennessee Self-Concept scale as well as a shift to a more internal orientation on the Rotter Internal-External scale.

The researchers who have reported on adolescent assertion training groups note that the same general procedure and techniques utilized with adults are effective with adolescents (ie: modeling, behavioral rehearsal, performance feedback, cognitive restructuring). However, they caution that the content of the program must be developed to suit the unique requirements of the specific population with whom the trainer is working. In terms of the population of pregnant adolescents, only one study has reported on the effectiveness of assertion training. Schinke, Gilchrist, & Small (1979) utilized assertion training with a group of pregnant adolescents to assess whether it would provide skills which might be useful in the prevention of subsequent unwanted pregnancies. They found that assertion training alone was a promising, but incomplete approach to providing the adolescents with the skills necessary for preventing unwanted pregnancy, and felt that adding a cognitive behavioral component was much superior in imparting and personalizing information regarding contraceptive use. These researchers did not examine any other effects of the assertion training.

In sum, it is evident that assertion training is a useful approach for changing behavior and teaching skills in adolescents; the next section outlines some additional

benefits of assertion training over and above the increase in actual assertiveness.

L. Benefits of Assertion Training - Therapeutic Effectiveness

In a review of the literature, Hersen, Eisler, & Miller (1973) noted that assertion training can be an effective treatment approach for a wide range of disorders including sexual deviation, self-mutilation, impotence, crying spells, and a variety of interpersonal problems. They felt that the reason for the effectiveness of assertion training is that the above conditions all have a common element underlying them: that the patients or clients are characterized by moderate to severe interpersonal deficits, and that assertion training teaches them new social and interpersonal skills which facilitates successful functioning in interpersonal relations.

The effects of assertion training appear to go beyond the learning of an assertive way of behaving and responding. Rathus (1972) found that assertion training reduced college women's fear of social confrontations as measured by the Temple Fear Survey Inventory. Fehrenbach & Thelen (1981) and Hewes (1975) found that assertion training was effective in decreasing aggressive responding and the expression of anger. Williams (1984) noted that individuals who demonstrate high levels of assertiveness tend to be less conforming than low assertive individuals to both high and

low status confederates. It is plausible that a greater self-confidence accompanies higher assertiveness, and that this might provide a buffer against peer influence and conformity.

Briedenbach (1977) reported that adolescents who received assertion training reported enhanced feelings of self-worth, perceived themselves in a more positive manner, were better satisfied with the way they perceived themselves, and felt personally more adequate. This is consistent with the literature that reports an improvement in subject's self-concept or self-esteem as a result of assertion training (Alberti & Emmons, 1978; Cotler & Guerra, 1975; Norem, 1978; Percell, 1974; Waksman, 1984b). Not only does the participant's self-esteem improve subsequent to the training program, but follow-up studies suggest that the increase in self-esteem is maintained (Reece & Wilborn, 1980; Stake, DeVille, & Pennell, 1983; Waksman, 1984b).

Assertion training has also produced changes in locus of control orientation. Steel (1976), utilizing assertion training with groups of women found that upon completion of assertion training, a gain in assertiveness was accompanied by a corresponding shift away from an external locus of control toward a more internal locus of control. Waksman (1984a) found that it was possible to change adolescent's scores on a locus of control measure through a four-week assertion training program. He attributed this change to the positive opportunity to explore alternatives to their usual

responses to interpersonal problem situations, and their realization of the control that they had over consequences.

To summarize, assertion training appears to be an effective method to change problems or deficits associated with interpersonal functioning, such as self-esteem, locus of control, and honest, direct, or assertive communication. These same variables are found repeatedly in the pregnant adolescent literature as factors associated with sexual activity, ineffective contraception, communication failure, and subsequent pregnancies. It was the contention of the writer that, based upon the literature, pregnant adolescents could benefit from an assertion training program as part of a preventive/interventive program. This study was an exploration of the effect on the pregnant adolescent of participating in an assertion training program. Following are the three general hypotheses which were developed to assess the influence of the treatment program.

M. Hypotheses

Hypothesis 1: Participants in the assertion training program will demonstrate an increase in self-reported assertiveness on the Modified Rathus Assertiveness Schedule.

Hypothesis 2: Participants in the assertion training program will achieve an increase in their level of self-esteem on the Coopersmith Self-Esteem Inventory.

Hypothesis 3: Participants in the assertion training program will become more internally oriented as indicated by

their responses on Rotter's Internal-External Locus of Control Scale.

The next chapter will outline the methodology for this study, and will provide more detailed information on each of the above measures.

III. Research Design and Methodology

A. The Sample

The group from which the sample was drawn consisted of those adolescent females residing in Woodside Home, which is a residential facility with the capacity for forty-one girls designed to provide services and support to the single, expectant mother. After prescreening the population at Woodside to exclude those girls who were approaching term, departing within the next five weeks, or so low functioning or emotionally disturbed as to be unable to complete the questionaires or comprehend the content of the group, thirty girls were identified who could participate in the initial testing. All thirty completed the pretesting measures, but due to hospitalization or departure from the Woodside program, the total number of subjects who participated in the final testing was twenty. The description of the sample and evaluation of change as a result of participation in the groups will thus be based on the twenty subjects who remained.

The subjects ranged in age from 14 years to 21 years (mean=17.17, S.D.=1.58). All were unmarried, currently enrolled in school, and were pregnant with their first child. Their grade levels ranged from 8 to 11 (mean=10, S.D.=.95), and in terms of residence, 50% each resided in a rural or urban location prior to entering the Woodside program. This sample was not stratified in terms of race or

parent's level of education. Sixty percent of the sample were caucasian, 20% were full-blooded native, 15% were mixed native-white, and 5%, or one girl, was Vietnamese. A specific breakdown was not available regarding the girls' parent's education; however, well over half of the sample were being funded by Social Allowance, and the majority of occupations noted for their mothers and fathers were, respectively, housewife and tradesman/laborer.

Demographic information was also collected on religious affiliation, living arrangements prior to Woodside, and parent's marital status. Forty percent of the girls listed their religion as Roman Catholic, 20% as Protestant, 20% as "other" (Anglican, Lutheran, United, Jehovah's Witness), and the remaining 20% listed "none". Only thirty percent of the subjects were residing with both parents prior to entering Woodside; 25% lived with their mother only, 10% lived with their father, and 35% noted alternate living arrangements (for example: group/foster home, boyfriend, Solicitor General - YDC). Finally, 60% of the subjects' parents were divorced, 35% were married, and 5%, or one father, was a widower. These family characteristics are very similar to those which have been repeatedly noted in the adolescent pregnancy literature (see chapter II).

B. The Instruments

In the present study, each subject was required to complete pre- and postmeasures of three self-report, paper-and-pencil inventories: the Modified Rathus Assertiveness Schedule, Coopersmith's Self-Esteem Inventory, and Rotter's Internal-External Locus of Control Scale. Following is a description of each of these instruments.

Modified Rathus Assertiveness Schedule

The original Rathus Assertiveness Schedule (Rathus, 1973) is a thirty item schedule designed to assess the subject's general level of self-reported assertiveness; it has been successfully used to assess change in unassertive women. Vaal (1975) modified the original schedule by reducing the readability level to low grade seven, and tested it on pre-adolescent and adolescent students. The use of this modified version with adolescents was confirmed by Vaal & McCullagh (1977).

The Modified Rathus Assertiveness Schedule is also a thirty item schedule designed to measure self-reported levels of assertiveness. The items are self-descriptive statements to which the subject responds on a six point scale ranging from "extremely descriptive of me" to "extremely nondescriptive of me". The total score is found by adding the value for each of the items (after reversing the signs for 17 of them); it can range from -90 (extremely unassertive) to +90 (assertive in all listed situations).

The original Rathus Assertiveness Schedule demonstrated moderate to high test-retest reliability (r=.78) and split-half reliability (r=.77), and validity was found to be satisfactory (Rathus, 1973). Vaal & McCullagh (1977) found moderate to high test-retest reliability (r=.76) as well as split-half reliability (r=.767) on the modified version of the schedule. Validity information was provided by McCullagh (1982); he assessed the factor structure and validity of the schedule on two hundred and fifty-five students between grades six to ten, and found seven factors accounting for the variance. Assertive confrontation and self-expression were convergent between female and male adolescents, while openness to scrutiny, conversational assertiveness, self-control, approval seeking, and verbal demands emerged for females. McCullagh concluded that the modified schedule demonstrated validity as a measure of assertion in adolescents, and noted that these results are consistent with earlier experiments conducted with the original schedule and college students. The results of the above suggests that this modified version can be reliably and validly used in research with adolescents.

Coopersmith Self-Esteem Inventory

The Coopersmith Self-Esteem Inventory (Coopersmith, 1981) is an instrument designed to measure evaluative attitudes toward the self in personal, social, academic, and family areas of experience. It is a self-report inventory

consisting of fifty self-esteem items plus eight additional items constituting the Lie scale, which is a measure of the subject's defensiveness. The answering procedure involves checking a box for each self-descriptive statement as being "like me" or "unlike me". The Self-Esteem Inventory yields a total score reflecting the overall level of self-esteem as well as four subscale scores. For the purpose of this study, only the total score was utilized for the analysis.

Coopersmith (1981) reported a high test-retest reliability (r=.88); Robinson & Shaver (1973) noted a split-half reliability coefficient of .90. A study completed by Kokenes (1978) confirmed the construct validity of the subscales proposed as measuring sources of self-esteem. Her investigation included school children in grades four through eight, and was designed to observe the comparative importance of the home, peers, and school to the global self-esteem of preadolescents and adolescents. Getsinger, Kunce, Miller, & Weinberg (1972) reported satisfactory convergent validity (.60-.63) between the Self-Esteem Inventory and two other measures. The Coopersmith Self-Esteem Inventory was chosen for the present study because of its age and reading level applicability, the length and format, as well as the acceptable reliability and validity measures.

Rotter Locus of Control Scale

Rotter's Internal-External Locus of Control Scale (1966) is a measure of a subject's perception of contingency relationships between his own behavior and events which follow that behavior. This inventory consists of twenty-three statement pairs, using a forced-choice format, plus six filler pairs to make the purpose of the test somewhat more ambiguous. This yields a single score ranging from zero (most internal) to twenty-three (most external).

Rotter (1966) reports the reliability of the instrument with a variety of samples to be .79 (split-half corrected by the Spearman-Brown formula); and .69 to .76 for Kuder-Richardson tests of reliability. In terms of convergent validity, the literature indicates that there are individual differences in perception about one's control over one's destiny, and that this scale is sensitive to these differences (Lefcourt, 1976; Rotter, 1966). Divergent validity has been assessed utilizing social desirability scales; these studies have reported correlations ranging from -.42 to -.70 (Cone, 1971; Hjelle, 1971). While this scale has most frequently been used with college students and adults, utility has also been demonstrated with adolescents (Robinson & Shaver, 1973).

C. Research Design and Methodology

The design of this study followed a pretest-posttest control group design (Campbell & Stanley, 1963). This design was selected in an attempt to control for threats to internal validity, as well as to allow greater confidence in attributing the cause of the observed changes to the actual treatment. Although participation in the study was voluntary, the girls were strongly advised to consider attendance as Woodside would like to integrate this group procedure into their current program. All of the girls identified after prescreening completed the pretest measures. Upon completion of the three pretest measures, the girls were randomly assigned to either the experimental or the control group. Originally, fifteen girls were assigned to each group; four left within the first week, and the other six followed at a more sporadic rate. A departure from the Woodside program was the reason for leaving the groups; the reasons for departure were varied, thus, there is no indication as to whether these girls were in any way systematically different from their peers who chose to remain. No subjects specifically left the experimental groups, but remained at Woodside.

The experimental group completed an assertion training program (see Appendix A), while the control group completed values clarification exercises (see Simon, Howe, & Kirschenbaum, 1978). It was felt that the latter tasks had face validity only, but were relatively innocuous in terms

of the variables of interest. The groups met twice a week for five consecutive weeks for a total of ten contact hours. Both groups were exposed to the same leaders: the writer, and a child care counselor who had extensive previous group work experience. In order to minimize the possibility of experimenter bias, the writer predominantly conducted the assertion training group, while the other leader had much greater involvement with the control group. At completion of the program, all of the subjects completed the three posttest measures. They were told that "the research was to determine any changes that may or may not have occurred as a result of participation in the group". No specific reference was made to the constructs under study. For both groups, the time span between pretest and posttest was approximately five weeks.

D. Data Analysis

The writer performed two-way analyses of variance with repeated measures on one factor (Winer, 1971) in analyzing the data from the pretest and posttest measures on the three instruments. Computations were completed utilizing the ANOV26 statistical software package from the Division of Educational Research Services (DERS) library. The minimum criterion for significance was set at the .05 level.

Additionally, Pearson product moment correlations were computed utilizing the DEST02 package from the DERS library. These were carried out on each of the groups to examine the

relationships, if any, between the following: age, education, and pre/posttest results on each of the three measures. The following chapter will present the results of the data analysis.

IV. Results

This evaluation focuses on three constructs which are believed to be modifiable as a result of participation in the experimental, assertion training program. Assertiveness, self-esteem, and locus of control instruments recorded pre and post treatment measures for the eleven subjects in the experimental group, and the nine subjects in the control group. The data accumulated were subjected to the statistical analysis described in the previous chapter to ascertain the tenability of the hypotheses which were developed for the study. Below is a summary of the hypotheses which were tested in the present study. They reflect the general hypotheses which were presented in chapter II, but have been expanded and stated in the null form so as to be amenable to statistical analysis.

A. Summary of Hypotheses Tested

Hypothesis 1: There will be no significant difference in scores between the experimental group and control group on the Modified Rathus Assertiveness Schedule.

Hypothesis 2: There will be no group by time of testing interaction on the assertiveness measure.

Hypothesis 3: There will be no significant difference in scores between the experimental group and control group on the Coopersmith Self-Esteem Inventory.

Hypothesis 4: There will be no group by time of testing interaction on the self-esteem measure.

Hypothesis 5: There will be no significant difference in scores between the experimental group and control group on Rotter's Internal-External Locus of Control Scale.

Hypothesis 6: There will be no group by time of testing interaction on the locus of control measure.

To test the equivalence of the two groups prior to treatment, the criteria of age, education, and pretest measures were used. For comparisons on all measures, *t* tests for independent groups were computed utilizing the ANOV10 program from the DERS library. Analyses revealed that there were no significant differences on any of the measures between the experimental and control groups, although the difference between the two groups on the Rotter Locus of Control Scale approached significance (see Table 1). To summarize the constitution of the groups, it can be stated that they were not different with respect to age, education, or pretest measures.

B. Findings Related to Change in Assertiveness

It was hypothesized that there would be no significant difference in scores on the Modified Rathus Assertiveness Schedule (MRAS) between the experimental and control groups as a result of the former group's participation in the assertion training program. An absence of a group by time interaction was also hypothesized. Table 2 provides the means and standard deviations of the Modified Rathus Assertiveness Schedule for the two groups. A two-way

Table 1

Comparison of Means Between Groups on Age, Education, and Pretest Measures.

Variable	Mean		SD		t	P
	Exp.	Control	Exp.	Control		
Age (mos)	205.66	206.44	18.95	21.09	-0.09	0.929
Education	10.18	9.78	1.17	0.67	0.92	0.370
MRAS	4.55	3.11	24.21	25.20	0.13	0.898
CSEI	68.18	68.89	21.33	15.33	-0.08	0.935
Rotter	9.64	12.22	3.47	2.59	-1.85	0.081

Note. Exp. = experimental group. Mos = months.

analysis of variance with repeated measures on one factor was performed, and the results are presented in Table 3.

The *F* values in Table 3 indicate that for the two groups, no evidence exists for the rejection of the hypothesis that the observed frequencies are any greater than chance, or that any significant interaction occurred. Thus, hypotheses 1 and 2 were not able to be rejected.

C. Findings Related to Self-Esteem

It was postulated that there would be no significant difference between the experimental and control groups with respect to their scores on the Coopersmith Self-Esteem Inventory (CSEI), or any interaction effect. Table 4 contains the means and standard deviations for the two groups, and Table 5 provides a summary of the analysis of variance.

For this measure, hypotheses 3 and 4 were both rejected. As can be seen in Table 5, there is a significant main effect over time as well as an interaction effect between group and time. Essentially, both groups were equivalent at pretesting, but the assertion training group exhibited a greater overall level of self-reported self-esteem at posttesting. A careful examination of the individual subjects revealed that 82% of the experimental group increased in their self-reported level of self-esteem as compared with 33% of the control subjects. The remainder either maintained their previous level or decreased. Thus,

Table 2

Means and Standard Deviations, Assertiveness Pretest and Posttest Measures.

Group	Pretest		Posttest	
	Mean	SD	Mean	SD
Experimental	4.545	24.209	11.818	27.517
Control	3.111	25.206	5.556	22.159

Table 3

Summary of Two-Way Analysis of Variance on Assertiveness Measure.

Squrce	MS	df	F	P
A (Group)	146.60	1	0.133	0.720
B (Time)	233.694	1	1.633	0.214
A x B	57.737	1	0.411	0.530

Table 4

Means and Standard Deviations, Self-Esteem Pretest and Posttest Measures.

Group	Pretest		Posttest	
	Mean	SD	Mean	SD
Experimental	68.182	21.325	76.909	18.338
Control	68.889	15.333	68.889	15.268

Table 5

Summary of Two-Way Analysis of Variance on Self-Esteem Measure.

Source	MS	df	F	P
A (Group)	132.490	1	0.217	0.647
B (Time)	188.641	1	5.015	0.038
A x B	188.332	1	5.006	0.038

the assertion training program appears to be effective in increasing the participants' self-reported level of self-esteem.

D. Findings Related to Locus of Control

The hypothesis that participation in the assertion training program would result in no difference in scores on the Rotter Locus of Control Scale was also rejected. The hypothesis of no interaction effect was retained, however. Table 6 presents the means and standard deviations for the two groups, and Table 7 provides a summary of the analysis of variance.

It was previously noted that the pretest scores between the experimental and control groups approached significance on this measure (see Table 1). This partially explains the significant main effect between the groups that emerged. Of greater interest, however, is the significant main effect over time which occurred to the exclusion of an interaction effect. Both the experimental and control groups shifted to a more internal orientation as a result of participation in their respective programs. Neither program appeared to be of greater worth in effecting this change. Thus, the hypothesis of no difference in scores was rejected due to the significant *F* values noted in Table 7; however, neither treatment was more effective in shifting the subjects' locus of control, thus, hypothesis 6 of no interaction was retained.

Table 6

Means and Standard Deviations, Locus of Control Pretest and Posttest Measures.

Group	Pretest		Posttest	
	Mean	SD	Mean	SD
Experimental	9.636	3.472	8.091	3.833
Control	12.222	2.587	11.000	1.871

Note. A lower score indicates a more internal orientation.

Table 7

Summary of Two-Way Analysis of Variance on Locus of Control Measure.

Source	MS	df	F	P
A (Group)	74.731	1	4.412	0.050
B (Time)	18.956	1	7.730	0.012
A x B	0.263	1	0.107	0.747

E. Ancilliary Findings

Pearson product moment correlations were computed by group to determine the relationships, if any, among the pre and posttest measures of assertiveness, self-esteem, and locus of control as well as age and education. The correlation matrix for the assertion training group is presented in Table 8.

For the assertion training subjects, the variables of assertiveness and self-esteem were significantly correlated; this may be interpreted to mean that an increase in the tendency to be assertive will be accompanied by an increase in self-esteem. For this group, locus of control was not significantly correlated with assertiveness or self-esteem, but was related to education level. Additionally, self-reported assertiveness on the posttest measure was significantly correlated with education level; this has ramifications in terms of deducing who might be most receptive to or affected by exposure to an assertion training program. This will be discussed further in chapter V.

The correlation matrix for the control group is presented in Table 9. For this group, there was no significant correlation between the variables of assertiveness and self-esteem, but there was between self-esteem and locus of control. This suggests that, for this group, an increase in self-esteem will tend to be accompanied by a move toward a more internal locus of

Table 8

Correlation Matrix - Assertion Training Group.

	Age	Ed.	Pre:MRAS	Pre:CSEI	Pre:Rotter	Post:MRAS	Post:CSEI	Post:Rotter
Age	1.000	0.338	-0.247	-0.574	-0.142	-0.160	-0.440	-0.509
Ed.		1.000	0.523	0.432	-0.525	0.695*	0.449	-0.652*
Pre:MRAS			1.000	0.767**	-0.131	0.796**	0.628*	0.102
Pre:CSEI				1.000	-0.221	0.812**	0.913**	-0.017
Pre:Rotter					1.000	-0.382	-0.387	0.747**
Post:MRAS						1.000	0.777**	-0.279
Post:CSEI							1.000	-0.286
Post:Rotter								1.000

* $P \leq .05$

** $P \leq .01$

Table 9

Correlation Matrix - Control Group.

	Age	Ed.	Pre:MRAS	Pre:CSEI	Pre:Rotter	Post:MRAS	Post:CSEI	Post:Rotter
Age	1.000	0.844**	0.119	0.340	-0.325	0.244	0.134	-0.326
Ed.		1.000	0.024	0.364	-0.330	0.162	0.341	-0.401
Pre:MRAS			1.000	0.507	-0.572	0.759*	0.313	-0.496
Pre:CSEI				1.000	-0.592	0.145	0.844**	-0.776*
Pre:Rotter					1.000	-0.547	-0.607	0.801**
Post:MRAS						1.000	-0.021	-0.368
Post:CSEI							1.000	-0.691*
Post:Rotter								1.000

* $P \leq .05$

** $P \leq .01$

control, or vice versa. It is of interest to note that for this group, age and education were significantly correlated, while for the assertion training group, the correlation was quite low.

F. Summary of Results

The evaluation of group effect has been completed, and the results presented in this chapter. In summary, hypotheses 1 and 2 concerning assertiveness scores and group by time interaction were not rejected, but hypotheses 3 and 4, involving self-esteem scores and interaction between group membership and time of testing, respectively, were rejected. Hypothesis 5, which stated that there would be no difference in scores on the locus of control measure was also rejected, but due to a lack of interaction effect, hypothesis 6 was retained. Discussion of the results and implications will be presented in the following chapter.

V. Discussion and Implications

A. Overview of Study

The purpose of this study was to investigate the effect on the pregnant adolescent of participation in an assertion training program on self-reported levels of assertiveness, self-esteem, and locus of control. Twenty subjects completed the Modified Rathus Assertiveness Schedule, the Coopersmith Self-Esteem Inventory, as well as Rotter's Internal-External Locus of Control Scale. Eleven of the twenty, the experimental group, were involved in a ten session assertion training program. The remaining nine comprised the control group, and completed values clarification exercises also for ten sessions. The pre and posttest results were analyzed statistically using a two-way analysis of variance with repeated measures on one factor; six hypotheses were tested. This chapter will begin with a discussion of the outcomes of the study, and will conclude with a presentation of the limitations, and the implications of this study.

B. Discussion of Results

The results of the present study provide some evidence of the effectiveness of assertion training procedures with pregnant adolescents. Consistent with previous research (Norem, 1978; Young, Rimm, & Kennedy, 1973), the analysis of variance on the data from the present study did not reveal statistical significance on the assertiveness measure at

posttesting. There are two possible explanations for this. The number of subjects in each group was quite a bit lower than that which is preferred for statistical analysis. Additionally, the variability within each group was quite high. The probability of a Type II error (concluding that an intervention is ineffective when it is in fact effective) increases with a small subject pool, an atypical group, and less than perfectly reliable instruments (Posavac & Carey, 1985). Thus, it is plausible that random variation had a role in producing an insignificant result, possibly being a Type II error.

Secondly, it is possible that the full effects of assertion training are not entirely apparent at posttesting. Studies completed by Reece & Wilborn (1980) and Stake, DeVille, & Pennell (1983) found minimal to no change between pre and post measures of self-report assertiveness measures. However, after a three month delay, follow-up posttesting revealed significant increases in levels of assertiveness. Waksman (1984a) found significant differences on an assertiveness measure at posttesting, and noted that after a seven-week follow-up period, some of the subjects' scores increased significantly from their posttest level. It is possible that the posttest/follow-up measures are revealing an "attitudinal lag" within the subjects; that is, that behavior changes may occur before one recognizes those changes and is able to report them. Thus, optimally, a delayed posttesting session should be employed as with time,

the subject will have incorporated their new skills into their behavioral repertoire, will have had greater opportunities to practice them, and will conceivably have begun to feel the personal benefits of its use. The present study did not incorporate a delayed posttest into its design as it was felt that many of the subjects would be difficult to locate after a number of months had passed.

A similar proposition could be made for the variables of self-esteem and locus of control. In the present study, subjects in the assertion training group significantly increased their level of self-esteem as compared with subjects in the control condition. Both groups experienced a similar shift in locus of control to a more internal orientation, with neither group being significantly greater than the other. In terms of the assertion training group, it is plausible that the changes resulted from the subjects' learning and practicing alternatives to their usual responses for interpersonal problem situations. By observing and practicing these alternatives, they perhaps realized the extent of their increasing sense of control in interpersonal situations as well as a difference in the mode of interactions with significant others. This might have led to more positive self-appraisals of competence and control. It is probable that assertion training sets in motion positive changes in self-esteem and a greater sense of personal control over consequences which continue after training, and may increase with time. These are two areas that the

literature identified as deficient in the population of pregnant adolescents; both variables were linked with inappropriate coital activity, unprotected intercourse, and subsequent pregnancies.

It was noted in chapter IV that the control group also experienced a shift in locus of control orientation that paralleled that of the assertion training group. This is similar to the findings that Norem (1978) reported in his study of the effects of participation in an assertion training program with grade 12 students. Norem also utilized values clarification exercises in his control condition, and found that both groups shifted to a more internal locus of control orientation. This is likely a function of the process that is involved with the values clarification approach. It requires that the individuals look both within themselves at their values, choices that they make, and their decision-making process as well as how their thoughts, values, and attitudes differ from their peers and the group leaders.

C. Conclusions

The results of the present study provide evidence of the immediate effectiveness of a short-term assertion training program with pregnant adolescents. It was possible to significantly improve pregnant adolescents' scores on a self-esteem measure and a locus of control measure through a five-week, ten session program. A trend toward greater

assertiveness was also evident. Over and above the paper-and-pencil assertiveness measure, it was apparent to the writer from observations of and interactions with the subjects that the specific objectives of the assertion training program were met (see Appendix A). Thus, regardless of whether or not the subjects will choose to behave or communicate assertively in the future, they at least have the choice to interact assertively as the skills have been learned, and at least partially incorporated into their behavioral repertoire.

It can be concluded that the assertion training program is effective in developing feelings of increased self-esteem and assertion, as well as fostering the pregnant adolescent's belief in her own capabilities in dealing effectively with both situational interactions and intimate relationships. Basically, the assertion training program had a notable effect in modifying three central aspects of adequate social functioning which are typically considered to be deficient in the pregnant adolescent. What the long-term effects of this program will be is beyond the scope of the current study. It is anticipated that, should the subjects maintain or improve upon the gains that they have made, this might have a marked effect upon their personal adjustment, behavior within intimate relationships, and perhaps their future family planning.

D. Limitations of the Study

Although the findings of the present study replicate those of studies with nonpregnant adolescents (Norem, 1978; Waksman, 1984a), interpretations or generalizations should be made with caution due to some limitations inherent in the present study. The sample size was small, and the group was chosen as a matter of convenience rather than being representative of the population of pregnant adolescents or a random sample of the same. As such, generalizations to the total population of pregnant adolescents cannot be made. The group at Woodside Home tends to be a multiple problem subset of the total population of pregnant adolescents; by this, it is meant that many or all of the adolescents who enter Woodside Home have had numerous past and ongoing difficulties including broken homes, physical and/or sexual abuse, drug and alcohol abuse, school failure, running away, truancy, and promiscuity to name a few. For many of these, the unplanned pregnancy is but one of a series of life's problems. According to Chris Penney, Director of Woodside Home (personal communication, January 20, 1986), if one looks at a range from no problems at the upper end (for example, an adolescent who gets pregnant due to a failure of the birth control device; no emotional/familial problems) to an adolescent who experiences multiple problems in all areas (personal, social, familial) at the lower end, the group of adolescents who utilize Woodside Home's facilities are generally from the bottom twenty-five percent. Additionally,

the group utilized for the present study were not stratified in terms of demographic variables; a disproportionate number were native, of low-income families, and from broken or dysfunctional homes. Thus, the findings are of necessity restricted to the group studied, and might not be valid for other ethnic or income-level groups.

The lack of a follow-up evaluation might be cited as a limitation of this study. The reason for this omission is that 50% of the subjects were from rural areas, and 35% resided in places other than the parental home. As such, it was anticipated that a follow-up posttesting session might only include 20 to 40% of the subjects. Thus, the decision was made not to incorporate this into the design of the present study.

E. Implications for Future Research

Although the limiting factors noted in the preceding section should be considered in making generalizations applicable to the total population of pregnant adolescents, the study's results have important implications for all agencies providing support/intervention for pregnant adolescents as well as general prevention prior to pregnancy, perhaps at the level of the school. It has been repeatedly noted in the literature that a lack of assertiveness, poor communication skills, low self-esteem, and an external locus of control are significant factors in the psychological and social adjustment of the pregnant

adolescent, and that these factors are strongly associated with unwanted or inappropriate sexual activity, ineffective contraceptive use, and poor communication with their sexual partner, parents, and professionals. It would appear that an assertion training program would be a very practical, structured, inexpensive, and effective method for increasing the adolescents' assertive communication skills, enhancing their self-esteem, and developing a sense of personal control and responsibility for their actions and outcomes. To the extent that the instruments utilized in the present study measure assertiveness, self-esteem, and locus of control, such effects as those mentioned above were obtained in this study.

The results of the present study provided a number of suggestions for future research, or implementation of assertion training programs with pregnant adolescents. First, the effect of group size could be examined. It would appear that a smaller group size, perhaps of six to eight adolescents would be more effective than a larger number. As was previously noted, the adolescents at Woodside Home typically have multiple problems in all areas; as such, they initially appeared to be very defensive and distrustful, and did not begin to feel a sense of group membership or cohesiveness until a number of sessions had passed. When working in small groups, though, they tended to be more open and active. The question for future research is, is this a characteristic of multi-problem pregnant adolescents, all

pregnant adolescents, or adolescents in general?

Secondly, future research should allow provisions for a delayed posttesting session, as well as long-term follow-up of the subjects. The purpose of this would be to assess the maintenance of change on the measures as well as future adjustment (for example, in relationships, and whether there were subsequent pregnancies). Although the suggestion was made that some of the effects of assertion training might be to delay subsequent pregnancies as well as to maintain more equitable, open, and honest relationships, it is acknowledged that there are many additional, uncontrolled factors which might supersede the changes that occurred as a result of the assertion training program, and lead to rapid, repeat pregnancies.

The third suggestion for future research is to implement an assertion training program with a less problematic group of pregnant adolescents, preferably those whose pregnancy is not associated with a pattern of significant psychological or familial disturbance. It is possible that the findings of the present study might not be valid for a more affluent group of pregnant adolescents; conversely, the changes might be much greater. It was noted in chapter IV that there was a significant positive correlation between education level, and increase in self-reported assertiveness at posttesting. This suggests that the adolescents who benefit more from assertion training are those in higher grade levels. Perhaps these

adolescents have a stronger future orientation, and are able to see the long-term benefits of the assertive skills over and above the here and now. It is also possible that they were better able to understand and incorporate the philosophy behind assertion training, as well as the ideas, concepts, and material which was presented. Further research is needed to identify which characteristics of pregnant adolescents lend them to be more receptive to and benefiting from assertion training.

The last suggestion for future research involves one of the instruments which was utilized for the pre- and posttesting measures. The Modified Rathus Assertiveness Schedule purportedly has a readability level in the low grade seven range; yet many of the subjects in the grade 9 to 11 range had difficulties with some of the items as well as the response mode. Perhaps the MRAS could be re-modified to eliminate difficult or confusing wording, and could incorporate a much simpler response format with clearer discriminations between response choices as well as a circling or checking format.

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APPENDIX A

Assertion Training Program

The assertion training program which was run at Woodside Home consisted of ten one-hour sessions which were held twice weekly for five consecutive weeks. Each session had a specific "theme", and the format of the sessions included a mixture of information giving (lecture), group discussion, modeling, and role-playing. This combination tended to keep all group members involved, and required each member to focus on her own behavior in concrete rather than abstract terms. The content of the program reflected the requirements outlined by a number of authors for the optimal assertion training program, and also was in accordance with the principles for ethical practice of assertive behavior training.

In teaching the responsible use of assertive behaving and responding, emphasis is placed upon the recognition that assertion is quite different than aggression, and that the rights of others are as important as the rights of the asserting person.

The content of the sessions, or the themes, can be broadly placed into four categories. Sessions 1 to 5 involved the expression of positive feelings as well as some basic communication skills. Session 6 and 7 involved stating or affirming one's position, point of view, or rights when the situation or context is appropriate to do so. Session 8 involved the most problematic area for most individuals - expressing unpleasant or negative feelings about a person to that person. This is a very important area as it is felt

that the ability to express negative feelings assertively decreases the likelihood of strong unfavorable reactions from others. Session 9 involved an examination of assertiveness as it related to pregnant adolescents; the focus was on relationships and sexuality. Session 10 involved an integration of the material presented as well as a closure to the group.

The specific objectives of the program were:

1. For the participants to develop better verbal and nonverbal communication skills;

2. For the participants to be able to discriminate between nonassertive, aggressive, and assertive behavior;

3. For the participants to become aware of their rights in a variety of interpersonal situations relevant to adolescents, and also to be sensitive to the rights and feelings of others;

4. For the participants to develop assertive behaviors through modeling, behavior rehearsal, instructions/coaching, and performance feedback, and for them to be able to emit assertive responses appropriately in situations external to those that they will practice within the group;

5. For the participants to be able to express their thoughts and feelings in a direct, honest way;

6. For the participants to feel both better about themselves and in greater control of their behavior, which ostensibly might lead to an improvement in their personal relationships.

Following is a more detailed breakdown of the individual sessions.

Session 1: An introduction to the group; what will be done in the group and how (emphasis on active participation); development of group norms for behavior and expectations. The participants introduced themselves, and greeted others. Examined direct versus indirect communication, and different ways people get what they want. Completed an exercise in giving and receiving compliments.

Session 2: Breakdown of nonassertive, assertive, and aggressive behavior: definitions and examples of each; role-plays of situations with various responses; discrimination test (examples) to assure that the participants understood the difference between the three.

Session 3: Focus on nonverbal components of communication including eye contact, body posture, facial expression, hand movements, latency of response, loudness, affect, distance, and fluency of spoken words. Used modeling to demonstrate assertive use of each. Had the participants

complete a "listening" exercise.

Session 4: The focus of this session was on initiating and maintaining social conversations. Additionally, a video was shown on communication skills and assertiveness. A "bragging" exercise was done to get the participants to focus upon and talk about positive aspects of themselves.

Session 5: Modeling and role-playing were utilized to teach the skill of making and refusing requests. As well, the group considered the expression of positive feelings (liking, loving, affection).

Session 6: During this session, consideration was given to standing up for one's legitimate rights. "Every Woman's Bill of Rights" was presented and discussed. A visualization exercise was used for the participants to imagine and feel the difference between having a basic right, and being in a situation where that right was taken away. Albert Ellis' thoughts on irrational beliefs were presented as some possible "blocks" to acting assertively.

Session 7: Expressing personal opinions was discussed during the beginning of this session. The participants then completed self-awareness exercises focusing upon needs, wants, shoulds, and "have to" versus "choose to". The participants also developed constellations of their relationships with significant others in terms of importance of the relationship, status, and distance.

Session 8: The expression of negative feelings was the focus of this session; particularily, the expression of

justified annoyance and displeasure, and the expression of justified anger. Great care was taken to insure that the participants understood the potential problems which could occur, as well as an acknowledgement of the approriateness of the situational context in which this might occur.

Session 9: During this session, the participants reexamined the relationship constellations from Session 7, particularily with respect to dominance in relationships, and their typical mode of response with the various individuals (assertive, aggressive, nonassertive). Discussed power and control in relationships; the meaning of "no" in society and in intimate relationships; difficulties expressing love and commitment; and the lack of discussion of needs, wants, and basics such as birth control.

Session 10: Wrap-up of the program; any further personal role-plays or personal situations were dealt with, and an integration of all of the material presented occurred. Posttesting on the three measures was completed at the end of this session.